

Patent claims

1. Method for the modular production of coverings of different categories (1, 10, 20, 40, 60, 70) for paper machines, paperboard machines or tissue machines, with which a construction kit of web-shaped material layers (2, 3, 4, 11, 15, 41, 42, 61) is prefabricated and with which several web-shaped material layers are selected from the construction kit (2, 3, 4, 11, 15, 41, 42, 61) depending on the category and operating condition of the covering to be produced (1, 10, 20, 40, 60, 70), stacked atop one another and joined to one another at least in sections, two-dimensionally, and in a manner that prevents them from being detached.
2. Method according to claim 1,
c h a r a c t e r i z e d i n t h a t
the order in which the web-shaped material layers (2, 3, 4, 11, 15, 41, 42, 61) are stacked depends on the category and the operating conditions of the covering (1, 10, 20, 40, 60, 70).
3. Method according to one of the claims 1 to 2,
c h a r a c t e r i z e d i n t h a t
at least two web-shaped material layers (2, 3, 4, 11, 15, 41, 42, 61) are joined together chemically.
4. Method according to claim 3,
c h a r a c t e r i z e d i n t h a t
the chemical bond is effected by an interface-active bond.
5. Method according to claim 4,
c h a r a c t e r i z e d i n t h a t
the interface-active bond is effected by vulcanizing or welding or melting.

6. Method according to claim 3,
characterized in that
the chemical bond is effected by adding a bonding medium (43, 71, 72).
7. Method according to claim 6,
characterized in that
the bonding medium is an adhesive (72).
8. Method according to claim 6,
characterized in that
the bonding medium itself forms a material layer (43) which is arranged between
the joined material layers (2, 3, 4, 11, 15, 41, 42, 61) .
9. Method according to claim 8,
characterized in that
the bonding medium itself forms a foamed material layer (43) between the joined
material layers (2, 3, 4, 11, 15, 41, 42, 61) .
10. Method according to one of the preceding claims,
characterized in that
at least two web-shaped material layers (2, 3, 4, 11, 15, 41, 42, 61) are joined
together mechanically.
11. Method according to claim 10,
characterized in that
the mechanical bond is effected by pressing.
12. Method according to one of the preceding claims,
characterized in that
at least two web-shaped material layers (2, 3, 4, 11, 15, 41, 42, 61) are joined
together by a textile joining method.
13. Method according to claim 12,
characterized in that
the textile joining method is effected by sewing or pinning.

14. Covering (1, 10, 20, 40, 60, 70) for paper machines, paperboard machines or tissue machines, which is constructed from several web-shaped layers (2, 3, 4, 11, 15, 41, 42, 61) from a prefabricated construction kit of web-shaped material layers (2, 3, 4, 11, 15, 41, 42, 61), whereby the individual web-shaped material layers (2, 3, 4, 11, 15, 41, 42, 61) are selected according to the category and operating conditions of the covering (1, 10, 20, 40, 60, 70) from the construction kit, and whereby the web-shaped material layers (2, 3, 4, 11, 15, 41, 42, 61) are stacked atop one another and are joined to one another at least in sections, two-dimensionally, and in a manner that prevents them from being detached.
15. Covering according to claim 14,
characterized in that
the order in which the web-shaped material layers (2, 3, 4, 11, 15, 41, 42, 61) are stacked depends on the category and the operating conditions of the covering (1, 10, 20, 40, 60, 70) .
16. Covering according to one of the claims 14 to 15,
characterized in that
the material layers fulfill specific functions on their own or in combinations.
17. Covering according to one of the claims 14 to 16,
characterized in that
the bonding medium (43) fulfills specific functions on its own or in combination with one or more material layers (2, 3, 4, 11, 15, 41, 42, 61) .
18. Covering according to one of the claims 14 to 17,
characterized in that
the construction kit of prefabricated web-shaped material layers (2, 3, 4, 11, 15, 41, 42, 61) comprises at least one material layer (2, 41, 61) influencing the surface of a fibrous web and at least one wear-stable material layer (3, 42).
19. Covering according to one of the claims 14 to 18,
characterized in that
the construction kit of prefabricated web-shaped material layers (2, 3, 4, 11, 15, 41, 42, 61) comprises at least one dimension-stable material layer (3, 41, 42).

20. Covering according to one of the claims 14 to 19,
characterized in that
the material layer (2, 41, 61) influencing the surface of the material web is a
textile (41, 61) or a non-textile areal structure (2).
21. Covering according to one of the claims 14 to 20,
characterized in that
the wear-stable material layer (3, 42) is a textile (42) or a non-textile areal
structure (3).
22. Covering according to one of the claims 14 to 21,
characterized in that
the dimension-stable material layer (3, 41, 42) is a textile (41, 42) or a non-
textile areal structure (3).
23. Covering according to one of the claims 14 to 22,
characterized in that
the construction kit of prefabricated material layers (2, 3, 4, 11, 15, 41, 42, 61)
comprises at least one material layer (4, 61) influencing the liquid adsorption
capacity (4, 61).
24. Method according to claim 23,
characterized in that
the material layer (4, 61) influencing the liquid adsorption capacity has a high
liquid adsorption capacity or a low liquid adsorption capacity.
25. Method according to claim 24,
characterized in that
the material layer (4, 61) with a high liquid adsorption capacity is a textile (61)
or a non-textile areal structure (4).

26. Covering according to one of the claims 14 to 25,
c h a r a c t e r i z e d i n t h a t
the construction kit of prefabricated material layers (2, 3, 4, 11, 15, 41, 42, 61)
comprises at least one anti-rewetting material layer (15).
27. Covering according to claim 26,
c h a r a c t e r i z e d i n t h a t
the anti-rewetting material layer (15) is a textile or a non-textile areal structure
(15).
28. Covering according to one of the claims 14 to 27,
c h a r a c t e r i z e d i n t h a t
the textile areal structure is a weave structure (14, 42) or a fleece (61) or a
thread plaiting or a warp knitting.
29. Covering according to one of the claims 14 to 28,
c h a r a c t e r i z e d i n t h a t
the non-textile areal structure is a structured and/or penetrated film (2, 3) or a
structured and/or penetrated membrane (15) or a foamed layer (4).
30. Covering according to claim 29,
c h a r a c t e r i z e d i n t h a t
the film (2, 3) is extruded and / or rolled.
31. Covering according to claim 29 or 30,
c h a r a c t e r i z e d i n t h a t
the foamed layer (4) has a defined pore size.
32. Covering according to claim 29 or 30,
c h a r a c t e r i z e d i n t h a t
the foamed layer (4) has several defined pore sizes.
33. Covering according to claim 32,
c h a r a c t e r i z e d i n t h a t
the foamed layer (4) has a defined pore size in the transverse profile.

34. Covering according to one of the claims 14 to 33,
c h a r a c t e r i z e d i n t h a t
the undetachable bond between the material layers is produced by a
chemical and/or mechanical bond.
35. Covering according to one of the claims 14 to 34,
c h a r a c t e r i z e d i n t h a t
different bonding methods are selected depending on the category, the operating
conditions and the material layers (2, 3, 4, 11, 15, 41, 42, 61) to be
undetachably joined together.
36. Covering according to one of the claims 14 to 35,
c h a r a c t e r i z e d i n t h a t
the various web-shaped material layers (2, 3, 4, 11, 15, 41, 42, 61) are mutually
offset in the machine direction and/or transverse to the machine and joined
together, two-dimensionally, in sections so that the covering forms two end areas
(30, 31) which complement each other in form and function and can be joined
together.